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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/795,998

03/10/2004

Yoshio Harada

P24845

2654

7055

7590

05/16/2006

GREENBLUM & BERNSTEIN, P.L.C.
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RESTON, VA 20191

EXAMINER

IVEY, ELIZABETH D

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/795,998

Applicant(s)

HARADA ET AL.

Examiner

Elizabeth Ivey

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/04, 2/06, 4/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I claims 1-7 and 10-13 in the reply filed on April 20, 2006 is acknowledged. The traversal is on the ground(s) that there is no burden in searching the additional claims. This is not found persuasive because the applicants have not suggested or argued why the proposed alternative method would not be a materially different method and further, the examiner has shown that subject matter of the two groups encompass two different statutory classes of invention each having a different classification. For purposes of the initial requirement of a restriction, a serious burden on the examiner may be prima facie shown if the examiner shows by appropriate explanation either separate classification, separate status in the art, or a different field of search as defined in MPEP § 808.02

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application publication 20050112398 A1 to Darolia et al.

Regarding claims 1, 2 and 4, Darolia discloses a substrate with a thermal barrier coating comprising a layer of aluminide or overlay material such as MCrAlX materials (page 3 paragraph [0024]). Darolia discloses a layer located above the overlay material comprising material such as Cr_2O_3 and a ceramic coating such as a zirconia based material over the aforementioned layers (page 2 paragraph [0022]). Darolia discloses the formation of a thermally protective oxide scale (Al_2O_3 layer), which forms at the surface of the MCrAlX layer as an oxidation product during processing (page 1 paragraph [0004]), as is also confirmed by applicant's disclosure on page 12 paragraphs 2-3 of the specification.

Regarding claims 3 and 10, Darolia discloses a thickness of the layer comprising Cr_2O_3 as 40-60% of 12.5-102 μm , or 5-61 μm , which overlaps the claimed range of thickness (page 4 paragraph [0034]). Additionally, claims 3 and 10 are product by process claims wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process unless it can be shown that the product produced by the process is in some manner measurably distinct from the product produced by another process." See *MPEP 2113*. As such, the process limitation within claims 3 and 10 do not provide patentable distinction over the prior art.

Regarding claims 5 and 11, Darolia discloses the overlay material may be a MCrAlX material, where M is Fe Co or Ni or alloys thereof and X is Y, Hf, Zr, Si or combinations thereof, providing a mass percent of Al of about 12% (page 3 paragraph [0024]).

Regarding claims 6 and 12, Darolia discloses a thickness of the (undercoat) MCrAlX layer as 30-60% of 12.5-102 μ m or 3.75-61 μ m, which overlaps the claimed range of thickness (page 4 paragraph [0034]).

Regarding claims 7 and 13, Darolia discloses a (topcoat) ceramic layer of zirconia stabilized with various metal oxides such as Y₂O₃, Ce₂O₃, Y₂O₃, CaO, Sc₂O₃, MgO, Yb₂O₃ (page 2 paragraph [0022]). Additionally, claims 7 and 13 are product by process claims wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process unless it can be shown that the product produced by the process is in some manner measurably distinct from the product produced by another process." *See MPEP 2113*. As such, the process limitation within claims 7 and 13 do not provide patentable distinction over the prior art.

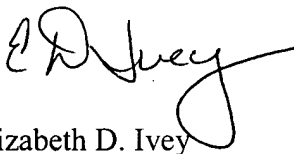
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Conclusion

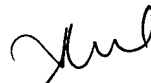
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Ivey whose telephone number is (571) 272-8432. The examiner can normally be reached on 7:00- 4:30 M-Th and 7:00-3:30 alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth D. Ivey



JENNIFER C. MCNEIL
SUPERVISORY PATENT EXAMINER

5/14/06